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REMARKS

In the Office Action dated May 27, 2005, claims 1-20 are pending. Claims 9 and 15 are herein canceled. Claims 1, 11, and 14 are independent claims from which all other claims depend therefrom. Claims 1, 11, and 14 are herein amended.

Claim 9 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claim 9 is herein canceled.

Claims 1-6, 8, and 10-13 stand rejected under 35 U.S.C. 102(a) as being anticipated by Kim (U.S. Patent 6,475,824).

Amended claim 1 recites the limitations of a mono-directional conductive layer that is electrically coupled to a detector. Multiple stacked flexible circuit layers are electrically coupled to the mono-directional conductive layer. Each of the flexible circuit layers includes fine line connections. The flexible circuit layers direct x-ray signals generated by the detector to a data acquisition system.

Kim discloses an x-ray detector that includes a detector 10 that is connected to gate pads and data pads 12 and 13. The pads 12 and 13 are connected to an anisotropic film 21, which is connected to an integrated circuit chip (IC) 14, 15 via a polyimide film 20b. The polyimide film 20b is connected to the IC 14, 15 and the anisotropic film 21 using foil strips, each of which having an inner lead 17 and an outer lead 18. The polyimide film 20b has fine circuit lines.

The Office Action states that Kim discloses a plurality of flexible circuit layers and refers to the foil strips 100. Applicants, respectfully, traverse. The foil strips 100 do not form and are not in the form of multiple layers. One may argue that the strips 100 are laid out over a single circuit layer between the polyimide film 20b and the anisotropic film 21, but clearly they do not form multiple layers.

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Also, the foil strips 100 are clearly not stacked and they do not each have fine line connections, as the flexible circuit layers claimed. Although the polyimide film 20b has fine circuit lines it too is a single layer.

Amended claim 11 recites the limitations of an electrically conductive substrate layer that is electrically coupled to a detector. A mono-directional conductive layer is electrically coupled to the substrate layer via multiple pads. A flexible circuit layer is electrically coupled to the mono-directional conductive layer.

The Office Action states that Kim discloses a substrate layer and refers to the pads 12 and 13. Applicants submit that the pads 12 and 13 are not a substrate layer and that nowhere in Kim is a substrate layer mentioned, disclosed, or suggested. Although it may be stated that the pads 12 and 13 are disposed in a single layer, the pads are not a substrate layer. A "substrate" generally refers to a base or support on which other parts, devices, or items are placed. Although the anisotropic film is attached on the pads 12 and 13, the pads 12 and 13 are not a base. Also, note that claim 11 now includes the limitation of multiple pads in addition to a substrate layer, the combination of which is not disclosed by Kim.

In order for a reference to anticipate a claim the reference must teach or suggest each and every element of that claim, see MPEP 2131 and *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628. Thus, since each and every element of claims 1 and 11 are not taught or suggested by Kim, Applicants submit that claims 1 and 11 are novel, nonobvious, and are in a condition for allowance. Since claims 2-6,8, and 12-13 depend from claims 1 and 11, respectively, they too are novel, nonobvious, and are in a condition for allowance for at least the same reasons.

Claims 7 and 14-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Hoffman (U.S. Pat. No. 6,859,514).

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Applicants submit that since claim 7 depends from claim 1, it is also novel, nonobvious, and is in a condition for allowance for at least the same reasons.

Amended claim 14 recites a mono-directional conductive layer that is electrically coupled to a detector. Multiple flexible circuit layers are electrically coupled to the mono-directional conductive layer. An isolation layer is disposed between the flexible circuit layers.

The Office Action states that Kim discloses an insulation layer disposed between flexible circuit layers. Applicants traverse. Applicants submit that nowhere in Kim is an isolation layer mentioned, disclosed, or suggested. The Office Action refers to item 20 of Kim for such allowance. Item 20 of Kim, as stated above, is the polyimide film that electrically connects the anisotropic film 21 to the IC 14, 15. The polyimide film 20 contains fine circuit lines and is clearly not an isolation layer or even an isolation device. The polyimide film 20 does not separate electrical connections between two or more flexible circuit layers. The polyimide film 20 is not even disposed between two layers, but rather is located on and is used to provide an electrical connection between the anisotropic film 21 and the integrated circuit chip 14, 15.

Applicants submit that from paragraph 19 of the Office Action, it is unclear whether the Office Action is referring to the polyimide film 20 of Kim or the detector 20 of Hoffman. Applicants assume that the Office Action is referring to the polyimide film 20, and have argued as such above. However, it is clear that the detector 20 of Hoffman is not an isolation layer, but rather contains detector elements for the reception of x-rays. In addition, Hoffman, like Kim, also fails to disclose an isolation layer and an isolation layer disposed between multiple flexible circuit layers, as claimed.

Referring to MPEP 706.02(j) and 2143, to establish a *prima facie* case of obviousness the prior art reference(s) must teach or suggest all the claim limitations, see *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Thus, since Kim and Hoffman fail to teach or suggest each and every element of claim

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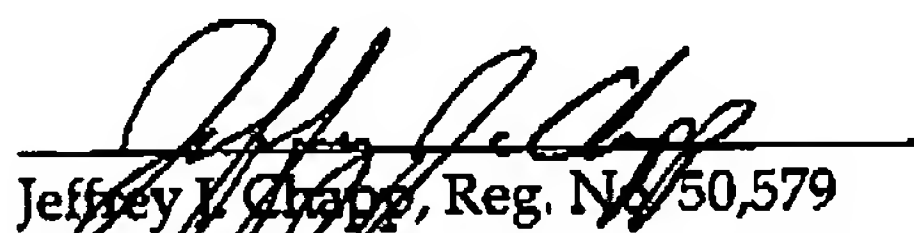
14, Applicants submit that claims 14 is novel, nonobvious, and is in a condition for allowance. Since claims 15-20 depend from claim 14, they are also novel, nonobvious, and are in a condition for allowance for at least the same reasons.

In light of the amendments and remarks, Applicants submit that all of the objections and rejections are now overcome. The Applicants have added no new matter to the application by these amendments. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments, the Examiner is respectfully requested to contact the undersigned attorney.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account 50-0476.

Respectfully submitted,

ARTZ & ARTZ P.C.


Jeffrey J. Chapp, Reg. No. 50,579
28333 Telegraph Road, Suite 250
Southfield, MI 48034
(248) 223-9500

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